



**CASABELLA HARDWOOD FLOOR MAINTENANCE &
INSTALLATION INSTRUCTIONS FOR:
Handcrafted Hickory, Natural Reserve Hickory & Timeless Oak & Hickory**

CARE AND MAINTENANCE:

- ◆ **PLEASE REMEMBER**, like any floor covering, our factory finished wood floors will show signs of wear over time, depending on the size and lifestyle of your family. By observing a few precautions along with setting up a regular cleaning and maintenance program, you can expect years of beauty from your floor.
- ◆ **REGULAR CARE AND MAINTENANCE:** Regular cleaning and sweeping of sand and dirt is required to maintain your new Casabella Hardwood flooring surface. Sweep or vacuum regularly since built-up grit will damage the surface of the wood. The vacuum head must be a brush or felt type. Be certain the wheels of the vacuum are clean and do not damage the finish. Do not use a vacuum with a beater barhead.
- ◆ **SPILLS:** Remove all spills immediately. Use a dry or damp cloth to wipe the surface clean and allow to dry. **CAUTION: FLOOR SURFACE IS VERY SLIPPERY WHEN WET. ALLOW TO DRY BEFORE WALKING ON SURFACE.**
- ◆ **CLEANING:** Use **CASABELLA HARDWOOD FLOORING** approved products to maintain your floor. Bona Hardwood Cleaner can be used. Consult an approved dealer for instructions. **ALWAYS SWEEP OR VACUUM THE FLOORS PRIOR TO USING WOOD FLOOR CLEANERS. DO NOT ALLOW EXCESS CLEANER TO REMAIN ON THE FLOORS SURFACE AS THIS MAY PERMANENTLY DAMAGE THE WOOD.**
- ◆ **DO NOT USE HARSH CLEANERS OR ABRASIVE CLEANING PRODUCTS TO CLEAN CASABELLA**
- ◆
- ◆ **HARDWOOD FLOORING. NEVER WET-MOP, DAMP-MOP, OR CLEAN YOUR FLOOR WITH WATER OR OTHER PRODUCTS. THIS CAN SEVERELY DAMAGE THE FLOORING AND WILL VOID THE WARRANTIES. DO NOT USE HARDWOOD FLOOR CLEANING MACHINES OR STEAM CLEANERS.**
- ◆ **DO NOT USE 2 IN 1 CLEANERS – THE USE OF THESE PRODUCTS WILL VOID THE FINISH WARRANTY AND MAY PRODUCE UNSATISFACTORY RESULTS WHEN NOT APPLIED PROPERLY. DO NOT USE OIL, SOAPS, LIQUID OR PASTE WAX PRODUCTS OR OTHER HOUSEHOLD CLEANERS THAT CONTAIN CITRUS OILS, LEMON OIL, TUNG OIL, SILICON, OR AMMONIA SINCE OUR WARRANTIES DO NOT COVER DAMAGE CAUSED BY NON-RECOMMENDED PRODUCTS. USE OF THESE AND OTHER SUCH PRODUCTS WILL HARM THE LONG-TERM PERFORMANCE OF YOUR FLOOR AND WILL VOID YOUR WARRANTY.**

◆ **FURNITURE:**

1. **NEVER SLIDE FURNITURE OR OTHER HEAVY ITEMS ACROSS FLOOR.**
Always protect the floor surface when moving items across the floor. Use a dolly and protective sheets of plywood when moving heavy objects, furniture, or appliances.
2. **NEVER PLACE HEAVY OBJECTS ON THE FLOOR WITHOUT “FLOOR PROTECTORS”.**
3. **NEVER PLACE HEAVY FURNITURE ON FLOOR FOR EXTENDED PERIODS OF TIME WITHOUT FLOOR PROTECTORS. AVOID HARD ROLLING CASTERS. USE FLOOR PROTECTOR PADS FOR ROLLING CHAIRS.** Make certain furniture casters are clean and operate properly (a minimum 1” wide vinyl surface where it comes in contact with wood is recommended). Clean wheels periodically to remove dirt and debris.

◆ **HOT ITEMS:** NEVER place “HOT ITEMS” on the floor surface.

◆ **PETS:** Clean up pet waste immediately as it is harmful to your **CASABELLA HARDWOOD FLOORING**. Keep pets’ nails trimmed, and paws clean and free of dirt, gravel, grease, oil, and stains.

◆ **REMOVE SHOES** with spiked or damaged heels before walking on floor.

◆ **MAINTAIN THE PROPER RELATIVE HUMIDITY** in your home between 35% - 55%. The use of a humidifier during heating seasons may help reduce shrinkage of the wood due to low humidity.

MAINTENANCE TIPS:

- ◆ Place outside doormats in all outside doorways to reduce dirt and moisture.
- ◆ Wipe up all moisture spills immediately.
- ◆ Clean the floor often.
- ◆ Do not use excessive water.
- ◆ Do not use unapproved cleaners, soaps, or detergents. **MANY OF THESE PRODUCTS WILL DESTROY THE FINISH ON YOUR FLOOR. BE VERY CAREFUL NOT TO USE CLOTHS CONTAMINATED WITH OTHER CLEANING PRODUCTS ON YOUR FLOORS. IT WILL VOID YOUR WARRANTY.**
- ◆ **BONA HARDWOOD FLOOR CLEANER AND TERRY CLOTH MOP KIT WILL REMOVE MOST SUBSTANCES FROM YOUR FLOOR.**

USE CASABELLA HARDWOOD FLOORING APPROVED PRODUCTS FOR LONG LASTING PERFORMANCE AND BEAUTY. FAILURE TO FOLLOW THE ABOVE CARE AND MAINTENANCE TIPS WILL VOID YOUR WARRANTY.

JOB SITE INSPECTION & ACCLIMATION

(Please read carefully!)

- ◆ It is the installer/ owners' responsibility to ensure that the jobsite conditions and jobsite subfloor are environmentally and structurally acceptable prior to the installation of any hardwood flooring. The manufacturer declines any responsibility for failures or deficiencies of hardwood flooring resulting from or related to sub-floor, sub-surface, or job-site environmental conditions. All substrates must be clean, flat, dry, and structurally sound.
- ◆ Subfloors must be clean and free of dirt, curing compounds, sealers, drywall mud, paint, wax, grease, urethane, or other materials that may affect the integrity of the flooring material or adhesives used to install the flooring.
- ◆ All subfloors and subfloor systems must be structurally sound and must be installed following their manufacturer's recommendations. Local building codes may only establish minimum requirements of the flooring system and may not provide adequate rigidity and support for proper installation and performance of a hardwood floor. Whenever possible install the planks perpendicular to the floor joists for maximum stability. Our warranties DO NOT cover any problems caused by inadequate substructures or improper installation of said substructures.
- ◆ Test wood sub floors and wood flooring for moisture content using a pin-type moisture meter. Take readings of the subfloor – minimum of 20 readings per 1000 sq. ft. and average the results. A “dry” subfloor that is ready to work on has a moisture content of 10% or less and the subfloor moisture content should be within 4% of the wood moisture content.
- ◆ The moisture content for concrete subfloors registered after a calcium chloride test should not be greater than 3 pounds per 1000 square feet of area. If it exceeds these limits, DO NOT install the flooring.
- ◆ Before moisture testing begins, the slab must be cured for a minimum of 30 days.
- ◆ Basements and crawl spaces must be dry. Use of a 6-mil black polyethylene is required to cover 100% of the crawl space earth. Crawl space clearance from ground to underside of joist to be no less than 18” and perimeter vent spacing should be equal to 1.5% of the total square footage of the crawl space area to provide cross ventilation. Where necessary, local regulations prevail.
- ◆ The subfloor must be flat, meeting a minimum of 3/16” within 10’ or 1/8” in 6’.
- ◆ Concrete subfloors - Grind high spots or use a Portland-cement-based leveling material (minimum compressive strength 3000 psi) to fill all low spots. Follow the leveling compound manufacturer’s instruction. Leveling compounds must be allowed to thoroughly cure and dry prior to installation of wood flooring.
- ◆ Wood subfloors - For staple down application use layers of 15lb. felt or wooden shims to fill low spots. Staples must be able to penetrate for holding power.
- ◆ All “wet” work – i.e. – paint, drywall, concrete, masonry, plumbing must be complete and dry well in advance of delivery of hardwood flooring.
- ◆ Gutters and downspouts should be in place and the exterior grade complete to allow for proper drainage of water away from the building’s exterior perimeter.
- ◆ Flooring should not be exposed to extremes of humidity or moisture.
- ◆ Permanent HVAC should be on and operational a minimum of 5 days and maintained between 65 – 75 degrees (F) and a relative humidity of 35%- 55% prior to delivery, during, and after installation of the flooring.
- ◆ IT IS THE INSTALLER/OWNER RESPONSIBILITY TO ENSURE THAT THE CONDITIONS ARE ACCEPTABLE PRIOR TO THE INSTALLATION OF THE FLOORS. THE MANUFACTURER SHALL NOT BE LIABLE FOR ANY AND ALL PROBLEMS WITH THE FLOORING THAT ARE RELATED TO OR ATTRIBUTED TO IMPROPER JOBSITE CONDITIONS.

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- ◆ In new construction, CASABELLA HARDWOOD FLOORING should be one of the last items installed. All work involving water or moisture, (plumbing, plaster/drywall ceilings or wall finishes, painting, etc.), should be finished and adequate time allowed for complete drying, prior to CASABELLA HARDWOOD FLOORING being installed. Heating and air conditioning systems (HVAC) should be fully operational and capable of maintaining a consistent room temperature at 60-80° F, and a constant relative humidity range of 35%-65%, for at least **5 days (for existing construction) and 30 days (for new construction)**, prior to beginning the wood flooring installation.
- ◆ Where the above referenced site conditions have not been met for at least five days, normal 48-hour flooring acclimation in the previously stated climate controlled conditions is required.
- ◆ Flooring should not be delivered until the above environmental guidelines are met. Concrete and plaster should be fully cured and dry. **Check basements and under floor crawl spaces to be sure that they are dry and well ventilated to avoid damage caused by moisture. Casabella Hardwood requires a minimum of 6mil vapor barrier placed on 100% of the surface of the ground in crawl spaces not finished with cement.**
- ◆ Wood Subfloors must be dry, (less than 10% moisture content), and within a 4% range of the moisture content of the CASABELLA HARDWOOD FLOORING being installed.
- ◆ Handle with care. Do not stand on ends or sides. Store Casabella Hardwood flooring flat with proper support on the ends and center sections in a dry place.
- ◆ Do not store directly upon on grade concrete or next to outside walls. Cartons should be placed as close to the center of the installation area as possible, away from exterior walls, windows, and doors. Keep out of direct sunlight and away from heat or air vents.
- ◆ **Do not open the CASABELLA HARDWOOD FLOORING cartons until ready to begin the installation.**

Recommended Subfloor Surfaces Concrete

Subfloor Guidelines

Concrete slabs should be of high compressive strength and constructed to prevent groundwater from permeating the concrete. Engineered hardwood flooring can be installed on, above, or below-grade. In addition, it can be installed over above-ground, suspended concrete floors. The suspended concrete must be a minimum of 1 1/2 inches thick and must be structurally sound. The exception to this is lightweight concrete (which usually contains high amounts of gypsum) having a density of 100 pounds or less per cubic foot. Test for lightweight concrete by using a nail to scratch the surface of the concrete. If the concrete crumbles or turns to powder, it is not sound and you should NOT install the hardwood flooring. Use the floating installation method (5 ply products 3" or wider) only for lightweight concrete subfloors.

Wood Subfloors Guidelines

Subfloor panels should conform to U.S. Voluntary Product Standard PS1-07, Construction and Industrial Plywood and/or US Voluntary PS 2-04 and/or Canadian performance standard CAN/CSA 0325.0-92 Construction Sheathing. Other CSA standards also apply.

Acceptable Panel Subfloors

Truss/joist spacing will determine the minimum acceptable thickness of the panel subflooring. On truss/joist spacing of 16" o/c or less the industry standard for single panel subflooring is minimum 5/8" 19/32", 15.1 mm) CD Exposure 1 subfloor panels, 4x8 sheets. □ On truss/joist spacing of more than 16", up to 19.2" (488mm) o/c, the standard is nominal 3/4" (23/32", 18.3 mm) T&G CD Exposure 1 Plywood subfloor panels, (Exposure 1)

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or nominal ¾” 23/32”, (18.3mm) OSB Exposure 1 subfloor panels, 4’x8’ sheets, glued and mechanically fastened. □ Truss/joist systems spaced over more than 19.2” (488mm) o/c up to a maximum of 24” (610mm) require minimum 7/8” T&G CD Exposure 1 Plywood subfloor panels, (Exposure 1), or minimum 7/8” OSB Exposure 1 subfloor panels, 4’x8’ sheets glued and mechanically fastened – or two layers of subflooring or brace between the truss/joist in accordance with the truss/joist manufacturer’s recommendations and with local building codes. Some truss/joist systems cannot be cross-braced and still maintain stability.

For existing wood floors install new flooring at right angles to the existing flooring.

Do not glue, staple, or nail down hardwood flooring over particleboard, floating application is acceptable (products 3” or wider).

Do not install over existing glue down hardwood floors.

WARNING! DO NOT SAND, DRY SWEEP, DRY SCRAPE, DRILL, SAW, BEADBLAST OR MECHANICALLY CHIP OR PULVERIZE EXISTING RESILIENT FLOORING, BACKING, LINING FELT, ASPHALTIC “CUTBACK” ADHESIVES OR OTHER ADHESIVES. These products may contain either asbestos fibers and/or crystalline silica. Avoid creating dust. Inhalation of such dust is a cancer and respiratory tract hazard. Smoking by individuals exposed to asbestos fibers greatly increases the risk of serious bodily harm. Unless positively certain that the product is a non-asbestos-containing material, you must presume it contains asbestos. Regulations may require that the material be tested to determine asbestos content and may govern the removal and disposal of material. See current edition of the Resilient Floor Covering Institute (RFCI) publication Recommended Work Practices for Removal of Resilient Floor Coverings for detailed information and instructions on removing all resilient covering structures. For current information go to www.rfci.com.

Ceramic tile and terrazzo: All wax and sealers must be removed with an appropriate cleaner/stripper. Ceramic tile and terrazzo should be abraded to allow for proper adhesion. Check for loose tiles by tapping and re-adhere. Fill grout lines with a cementitious latex fortified leveling compound.

Resilient tile, resilient sheet vinyl: Material must be full spread and secured to the subfloor. Do not install over perimeter glued floors. Do not install over more than one layer that exceeds 1/8” in thickness.

Nail/ Staple Down Only - If old flooring is unsuitable to install new flooring then overlay with new underlayment. Test to conclude that the staples/ cleats are able to properly penetrate and secure the flooring to the subfloor.

Glue Down Only – Do not install over more than one layer that exceeds 1/8” in thickness. Clean flooring with an appropriate cleaner and allow to thoroughly dry. If necessary de-gloss the floor using an abrasive pad to enhance the bonding of the adhesive, if wax or other coatings are present, completely remove the material with a quality stripper, rinse the floor and allow to dry. Always check for proper adhesion bond prior to installing.

Acoustic Cork Underlayment: (Glue Down Only) – Install the cork underlayment according to the manufacturer’s instructions. The cork underlayment must be fully adhered to the subfloor. The cork underlayment should be of pure granulated cork combined with a polyurethane binder with a minimum density of 11.4 lbs. per cubic foot and not to exceed 13 lbs. per cubic foot.

Pre-installation/ Job Preparation

Inspect the Flooring – Inspect material for color, finish, milling, and grade. Remove pieces that may not be acceptable once installed.

PLEASE NOTE: We do not accept responsibility for any costs incurred when plank(s) with visible defects have been permanently installed.

Undercut Door Casings - Undercut all door casings 1/16" higher than the thickness of the flooring being installed. To do this, use a scrap piece of flooring as a guide. Lay it on the substrate and cut the casing with a handsaw or use a power jamb saw set at the correct height.

Blending of Cartons- To achieve a uniform appearance across the entire floor, we highly recommend that you open and work from several cartons at a time and dry-lay the flooring, mixing the planks from several cartons. This will allow you to blend the planks for maximum aesthetic appearance. Make certain the room is well lit to ensure color is consistent and that any visual defects can be seen and removed.

Match Transition Moldings: For best appearance blend all transitions and moldings to planks that have similar color and graining. Set them aside for use as needed.

Layout of Flooring: “Racking the Floor” is essential to achieve a random appearance. Start by either using random-length planks found in the carton or by cutting four or five planks in random lengths, differing by at least six inches. As you continue working across the floor try to maintain a nine-inch minimum between end joints. Randomly install different lengths to avoid a patterned appearance. Never waste materials; the end cuts from starter rows should be used at the opposite side of the room to complete rows or used to start the next row.

Expansion space: Expansion space around the perimeter is required and should be equal to the thickness of the flooring material. For floating installation, the minimum is ½” regardless of the thickness of the material. For commercial installations use a minimum of ½” expansion.

Please read **BEFORE** you begin installation.

At Casabella Hardwood, we want you to be fully satisfied with your new hardwood floors. Casabella Hardwood has one of the lowest warranty rates in the industry and the highest manufacturing standard in the industry. We want you to be satisfied with your purchase. **CASABELLA HARDWOOD FLOORING WILL UNCONDITIONALLY ACCEPT ALL FLOORING RETURNED IN FULL UNDAMAGED CARTONS WITHIN A REASONABLE TIME FRAME AFTER PURCHASE.**

PLEASE BE AWARE, YOU ARE RESPONSIBLE TO READ AND UNDERSTAND THE INSTALLATION PROCEDURES OR YOU CAN VOID YOUR WARRANTY.

Retailer/Installer/Owner Responsibility

Carefully inspect ALL Casabella Hardwood flooring prior to installation for defects/objections: Materials installed with visible defects are not covered under our warranty. **This is an industry standard.** Wood is a natural product that varies in color, grain, gloss, and contains natural characteristics that differ from plank to plank. Much of this is dependent on the density and grain which varies from tree to tree. This is normal. We do

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not warrant against these natural variations from plank to plank or variations from sample to plank. **IT IS YOUR RESPONSIBILITY TO INSPECT THE FLOORING BEFORE IT IS INSTALLED. IF YOU ARE NOT SATISFIED WITH THE FLOORING PRIOR TO INSTALLATION, CONTACT YOUR DEALER – DO NOT INSTALL THE FLOORING. IF YOU INSTALL THE FLOORING, YOU HAVE ACCEPTED ITS MANUFACTURED APPEARANCE.** Accepting or rejecting the material must be done on full cartons not plank by plank. Casabella Hardwood flooring has one of the lowest warranty rates in the industry and the highest manufacturing standard in the industry. We want you to be satisfied with your purchase.

You **MUST**, as the final inspector, inspect for proper color, finish, style, and quality **PRIOR** to installation. Verify that the flooring is the correct material. Care should be taken at this time to remove or repair particular characteristics you do not desire.

Manufacturer shall not be responsible **for any costs** incurred when plank(s) with visible defects have been installed. A visible defect is any defect that exists before installation and was visible to the naked eye. If your hardwood flooring is installed properly and not damaged by exclusions not covered by our warranty, Casabella Hardwood will always warranty the structure of your flooring as per the warranty agreement.

The use of stain, filler, or putty stick for the correction of minor defects during installation should be accepted as normal procedure.

An 8% cutting allowance, depending on layout, must be added to the actual square footage amount needed. (Some installations will require a higher percentage.)

CAUTION: WOOD DUST

The International Agency for Research on Cancer has classified wood dust as a nasal carcinogen. The sawing, sanding, and/ or machining of wood products can produce wood dust that can cause respiratory, eye, and skin irritations. Equipment should be equipped with a dust collector to reduce airborne wood dust. Wear an appropriate NIOSH designated dust mask to reduce exposure to airborne wood dust. Avoid contact with eyes and skin. In case of irritation, flush eyes or skin with water for at least 15 minutes. In cases of severe irritation; seek immediate medical attention. For further technical or installation questions or to request a Product Specification Data Sheet contact the manufacturer. 1-281-766-1600

BE CAREFUL TO SELECT THE INSTALLATION THAT MATCHES THE PRODUCT YOU PURCHASED!

INSTALLATION WHEN USING A LOCKING SYSTEM:

A. WHERE CAN THE FLOORING BE INSTALLED?

Install **CASABELLA HARDWOOD FLOORING** in most rooms and most grade levels **ONLY IF PROPER PREPARATION IS USED AND AREA MEETS MOISTURE TEST REQUIREMENTS.**

B. BATHROOM OR LAUNDRY FLOORS ARE NOT OK:

Do not install **CASABELLA HARDWOOD FLOORING** in areas of excessive moisture. Moisture damage from automatic water dispensers is not covered by this warranty.

PREPARATION OF FLOOR:

Install [CASABELLA HARDWOOD FLOORING](#) on concrete, ceramic tile, terrazzo, marble or stone sub-floors that are smooth, level and well bonded. [CASABELLA HARDWOOD FLOORING](#) may also be installed on wood or wood product sub-floors that are clean, well bonded and smooth.

DO NOT INSTALL OVER CARPET OR ANY CUSHIONED BACKED PRODUCT. DO NOT INSTALL OVER ANY PRODUCT THAT IS NOT PROPERLY ADHERED.

1. Sub-floors **MUST BE CLEAN, DRY, LEVEL, AND WELL BONDED.**
2. Remove all existing trim throughout the room.
3. Measure the door clearance. If the door will not clear the floor, the door must be trimmed to fit from the bottom.
4. Install plastic sheeting on sub-floors. Always use moisture barrier plastic sheeting on any below grade floor and on all concrete floors. Overlap the plastic sheet 6-8 inches and tape the plastic sheeting with 2-inch plastic or clear vinyl tape.
5. Use ¼” spacers to maintain the proper expansion gap around the entire perimeter of the floor. In large rooms, a ½” expansion gap may be preferred. **IMPORTANT:** this ¼” gap must be maintained around cabinets, pipes, toilet flanges and any other obstacles in floor.
6. Always work from left to right. Planks should run lengthwise against the longest wall, and if possible, parallel to incoming sunlight.
7. Always install tongue side facing wall.
8. A CASABELLA HARDWOOD approved UNDERLAYMENT MUST be laid down prior to applying [CASABELLA HARDWOOD FLOORING](#).

Sub-Floors:

- ◆ Test floor for excessive moisture before installing over concrete, vinyl tile, concrete covered with ceramic tile, marble, stone, or linoleum. To do so, cut 3’ x 3’ squares of polyethylene plastic (one plastic square for every 200 sq. ft. of floor space). Spread plastic around different areas of the subfloor for a more accurate evaluation. Firmly tape down all edges of the plastic sealing them directly to the existing subfloor. Leave plastic down for 24 to 48 hours. **Look for moisture under the plastic or for the cement to darken, this indicates excessive moisture.**
- ◆ **Always perform a Calcium Chloride Moisture Emissions Test. The maximum allowable reading is 3 lbs./1000 sq. ft./24 hours. You MUST retain your test and results to have a valid warranty.**
- ◆ Concrete Sub-Floors – use minimum 6-mil polyethylene (plastic) sheeting as a vapor barrier. Roll out the plastic, overlapping the seam area 6 to 8 inches and tape the seamed with a 2” clear plastic sealing tape.
- ◆ Wood Sub-Floors – no additional plastic vapor barrier should be installed but subfloor must meet moisture restrictions. If moisture levels are too high, this must be alleviated before flooring is installed. Your contractor will need to diagnose your individual site conditions to solve this issue.

BEGIN INSTALLATION:

- ◆ Begin the installation in the left-hand corner. Place the plank a minimum of ¼” from the left wall. Use spacers throughout all perimeter areas to ensure the correct expansion space is maintained. **(a)**
- ◆ Place the second plank tight against the short end of the first plank. **(b)**
- ◆ Fold down into the locked position with a single movement. **(c)**
- ◆ Place the final plank face down with the short side towards the wall. The remaining expansion space should be at least a minimum of ¼” from the wall. Draw a pencil line where the plank is to be cut. **(d)**
- ◆ Place the plank face down on the work surface and cut to size with a power saw. If you are using a hand saw, use a fine-toothed blade and cut the planks face up. **(e)**
- ◆ Begin the second row. The first and last planks in the rows should have a minimum length of 24 inches. **(g)**
- ◆ The minimum distance between short ends of planks in parallel rows shall not be less than 24 inches. **(g)**
- ◆ Connect the planks in the following rows by aligning the end seam of each plank directly above the end seam of the preceding plank. Insert the long side seam at a slight angle first and as the top surfaces meet, rotate the plank down into the locked position. **(h)**
- ◆ The distance to the walls can be adjusted when three rows are completed. **(i)** Remember to place the flooring a minimum of ¼” from all walls or other vertical obstructions such as cabinets, pipes, or columns. **(j)**
- ◆ In areas such as a doorjamb or cabinet kick base where planks cannot be angled to lock into place, use a wood chisel to remove the locking ridge from the bottom of the plank groove. Apply a 1/8” bead of tongue and groove adhesive to the bottom groove and gently tap the plank into place using a pull bar and hammer. Next, apply enough strips of painter’s tape across this seam to hold the joint securely in place until the adhesive sets. Using a clean, soft cloth, carefully clean up any excess adhesive on the surface of the planks. **(k)**
- ◆ On the first and/or last row where there is no polymer tongue on the short side, glue the joint with Clear Elmer’s glue where they join on the short end. **(l)**

DISASSEMBLY WHEN USING A LOCKING SYSTEM:

Your floor can be disassembled very easily, enabling replacement during installation and also during use. **(m)** Disassemble the panels by sliding them apart horizontally at the end seams. **(DO NOT FOLD CONNECTED PLANKS UPWARDS!)** **(n)**

RADIATOR PIPES:

- ◆ Drill the holes 3/4" larger than the diameter of the pipes. (o)
- ◆ Remove all spacers.
- ◆ Install molding and transition pieces. Attach wood color coordinated molding or your desired trim and transition pieces using nails, screws or adhesive. **NEVER ATTACH ANY MOLDING USING NAILS, SCREWS OR GLUE DIRECTLY TO CASABELLA FLOORING**

INSTALLATION WHEN USING TONGUE AND GROOVE:

REQUIRED TOOLS AND ACCESSORIES

- * Hand Saw or Electric Saw (Carbide Tip Blade Recommend)
- * Carpenter's Square
- * Utility Knife
- * Tapping Block
- * Spacers (3/8" to 9/16")
- * Safety Equipment (Goggles & Mask)
- * Tape Measure
- * Soft Rubber Mallet
- * Broom
- * Hammer
- * Pull Bar

FOR FLOATING INSTALLATIONS, YOU WILL ALSO NEED

- * Casabella Hardwood Tongue and Groove approved Flooring Adhesive or equivalent
- * Casabella Hardwood approved Adhesive Remover or equivalent
- * Both Damp and Dry Towels

FOR GLUE DOWN INSTALLATION ONLY YOU WILL ALSO NEED

- * 100 or 150 lb. Roller
- * Casabella Hardwood Approved Hardwood Flooring Adhesive or an equivalent product.
- * Casabella Hardwood Approved Adhesive Remover or equivalent product.
- * Notch Trowel – 1/4" square notch (for planks 5" or wider), 3/16" square notch (for planks less than 5" wide)
- * Both Damp and Dry Terry Towels for clean-up.

NOTE: REFER TO THE ADHESIVE LABEL FOR PROPER TROWEL REQUIRED, SPREAD RATES AND INSTALLATION APPLICATION INFORMATION.

SUBFLOOR PREPARATION

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NOTE: As flooring wholesalers, we are unable to specifically evaluate each engineered subflooring system. Spacing and span lengths, as well as their engineering methods, are the responsibility of the builder, engineer, architect or consumer, who are better able to evaluate their expected results, based on site-related conditions and performance requirements. The general information provided below describes common, non-engineered joists and subfloor decking systems.

Engineered subflooring systems may allow for wider spacing of engineered beam support systems; and alternative subfloor decking materials, while also providing equal performance characteristics to the systems discussed below.

Approved Subfloor Types (please see acceptable subfloors above also):

* APA approved minimum - 5/8" thickness, preferred - 3/4" or thicker exterior grade plywood, on 16" centered 2"x10" joists.

* **NOTE:** When installing and fastening approved plywood, please follow the specific structural panel manufacturer's instructions.

* 3/4" (23/32") OSB on 16" center, 2"x10" floor joists properly nailed. When installing

Casabella Hardwood Flooring over engineered joists and truss systems that are spaced wider than 16" on center, it may be necessary to add an additional layer of sub flooring or use additional cross bracing to stiffen the system, reducing excessive deflection.

* Concrete slab- Most Engineered Casabella Hardwood Flooring Products can be installed on all grade levels.

Concrete slabs must be clean and dry- less than 3 lbs. /1000 sf. / 24 hr. - per CCTM.

Subfloor must be:

* **CLEAN** - Scraped or sanded, swept, free of wax, grease, paint, oil and other debris.

* **SMOOTH/FLAT** -Within 1/8" in a 10' span. Sand high areas or fill low areas with cement base leveling compound- no less than 3000 psi rating.

***STRUCTURALLY SOUND** - Nail or screw any loose areas that squeak or reveal movement. Replace any damaged sub flooring or underlayment.

* **DRY** - Moisture content of wood subfloor **must not** exceed 10% prior to installation of wood flooring.

* **MOISTURE CONTENT BALANCED** -Wood based subfloors and the wood flooring to be installed must be within a 4% range of each other's moisture content.

Remember: Moisture testing results must be verified (and retained to keep your warranty in effect) both before and after, the wood has been acclimated 48 hours, and all other job site requirements have been met.

Wood Substrates: Test the moisture of the wood substrate using a calibrated (pin type) moisture meter approved for testing wood moisture content. The reading should not exceed 10%, or read more than a 4% difference than moisture content of flooring products being installed.

Concrete Sub floor requirements for adhered (glue down) or Floating installations:

All concrete sub floors must be tested for moisture emissions prior to installation. The moisture emissions of the fully cured **concrete** sub floor must not exceed **3 lbs. /1000 sq.ft./24 hr. emissions**, measured using the Calcium Chloride Test method. When using an electronic moisture meter; readings higher than the maximum moisture level readings of 3.5% to 4% indicate the need for a Calcium Chloride and pH tests, **and any necessary corrective action for the concrete sub floor indicated by the test results, must be successfully completed and documented before the installation can proceed. If you have determined that moisture is present, a**

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Calcium Chloride and pH Alkalinity Test are mandatory, to accurately determine the amount of moisture content and the pH level in the concrete slab, so that appropriate corrective actions can be taken.

*Perform a Calcium Chloride test according to the manufacturer's instructions. The maximum acceptable reading is 3-lbs. /24 hours/1000 sq. ft for moisture emissions.

* Perform a pH Alkalinity Test according to the manufacturer's instructions. A pH reading of 6-9 on a pH number scale of 1-14 is acceptable.

* If the test results exceed these numbers, the concrete slab should be sealed with an appropriate sealer.

Installation on Plywood and Wood Substrates:

Do not install over particleboard, with exception of products that can be installed using the floating installation method.

Subfloor suitable for nail down or stapled wood flooring installation should be constructed of a minimum 5/8", or preferably thicker plywood when installing directly over 16" on center 2"x10" joists. Plywood sheets should be laid with grained outer plies at right angles to joists; with adjacent rows staggered four feet and nailed every 6" along each joist with 7D or larger nails. When installing new hardwood flooring directly over an old wood or strip wood floors, sand any high spots. Re-nail the old floor to eliminate squeaks or loose boards, and install new planks at right angle (perpendicular) to the old floor. Remember, the moisture content of the wood or plywood subfloor should not exceed 10%.

Important: Do not install any Casabella Hardwood Flooring Product using the glue down installation method over any vinyl asbestos flooring, vinyl composition tile, linoleum, asphalt tile, ceramic or stone tiles, carpet, or vinyl sheet products. Use a Casabella Hardwood that is rated for the Floating Floor Installation Method.

Radiant Heated Sub Floors

* These CASABELLA HARDWOOD FLOORING products are approved for installation over radiant heated subfloors using either Adhered or Floating installation methods, if applicable for the product.

* **Nail or Staple Down installation methods are not recommended for Radiant Heated Sub Floors.**

* Radiant Heating Systems used must be designed and controlled specifically for Hardwood flooring by the system manufacturer, and include an Outside Temperature Probe, and Surface Temperature Controls.

* The end consumer should be aware that minor gapping between wood planks during the heating season is a normal occurrence with hardwood flooring installed over radiant heated subfloors.

* Proper humidity controls within the home or business will help to minimize the natural wood reaction to seasonally changing climate conditions.

* Indoor climate should be maintained between 60-80° F and a relative humidity range of 35%-65%.

Adhere to the following guidelines for a successful installation over radiant heat:

* Newly installed water type radiant heated flooring systems should be in operational mode with temperature set between 64° -72°F, for a minimum of 4 weeks to ensure that all sub floor moisture has properly dried.

* Older water type radiant floor heat systems should be fully pressure tested, properly maintained, and set to a minimum of 64°F, for at least 4 days before flooring delivery; acclimation, or installation processes may begin.

* All radiant heating systems must be set to room temp. (A minimum of 64°F), for at least 4 days before flooring delivery; acclimation, or installation processes may begin.

* Always check wood sub floors to ensure that the moisture content is less than 10% using an accurate wood moisture meter.

* Concrete sub floors must register "dry", using a reliable concrete moisture meter.

* The pH level of concrete sub floors should register between 6 and 9, on a fourteen-point pH scale.

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- * Sub floors must fully comply with these “dry” requirements before proceeding with the delivery, acclimation, or installation of the wood flooring at the job site.
- * Regulate the job site to ensure that the relative humidity is between 35% and 65%, and that temperature is between 60° and 80° F, throughout the flooring delivery, acclimation, installation and any required curing processes.
- * Deliver and acclimate the engineered hardwood flooring, for at least 48 hours before installation begins.
- * Install the hardwood flooring according to the instructions that pertain to the product.
- * After completing the installation, do not change the radiant heat setting for 48 hrs.
- * Throughout the life of the installation, 3 to 5 degree daily increments must be used when adjusting system temperature for either upward or lower adjustments; so that the hardwood flooring can adjust to the temperature changes in a gradual manner.
- * Never raise the flooring surface temperature setting above 85 degrees Fahrenheit.

FLOATING FLOOR INSTALLATION METHOD

Approved Subfloor Types:

These Casabella Hardwood Flooring products which have been approved for the floating installation method can be installed over any dry, level, sound subfloor, regardless of install level or sub floor type. All subfloors should be covered with Casabella Flooring approved underlayment products with a minimum 6mil polyethylene vapor barrier.

Note: Any pre-existing wood panels or strips that are floating or direct glued to the concrete slab, must be removed before installing Casabella Engineered Hardwood flooring using the floating method.

Below or On Grade: **Always check the slab for excessive moisture and perform a PH test to ensure that the slab is suitable for hardwood installation. (See Concrete Slabs:)** Install Casabella Underlayment or Casabella approved underlayment products with a minimum 6mil polyethylene vapor barrier. 6mil. poly film should be lapped up the wall 4” all the way around the room. This can be trimmed off after moldings are installed. All seams must be taped with 2” clear package tape when installing over concrete slab.

JOBSITE PREPARATION

- * Undercut door casings
- * Remove any existing wall base, shoe molding, quarter round or doorway threshold.

Important: Do not install cabinets, fixtures, or walls on top of the flooring when using the floating installation method.

Step 1: POSITION THE FIRST ROW

Important: The flooring should be installed from several cartons at the same time to ensure proper color, grain, and shade mix.

1. Before starting, first measure the width of the room, and then divide the room’s width by the width of the plank. If this means that the last row of planks will be narrower than 2”, then you will need to cut the first row of planks to make it narrower. Cut in such a way that both rows of planks (the first and last to be installed in the room) will have the same approximate width for an overall continuous look.

See installing the last row.

***Note:** To cut the boards, always saw with the teeth cutting down into the face or top of the board. Cutting from the top down helps protect the surface. Use a carbide tip blade to ensure smooth cuts.

2. Begin the installation of the planks in the left-hand corner of the room with the long direction parallel to the

longest wall of the room. Always start so that you will be working left to right when facing the starting wall. When possible, run the length of the planks in the same direction as incoming sunlight.

Be sure to install the first row of engineered planks with the tongue side facing the wall.

* Using the proper spacers (depending on the thickness of the flooring), provide a gap for the seasonal expansion of the flooring along the walls of the entire room. Always place expansion spacers against the wall every 2-3'. Also place spacers at each plank end joint connection, as this will make maintaining a straight line install easier.

* **Note:** Larger rooms require additional expansion space. Add 1/16" to the width of the expansion space for every 3' the room extends beyond 25'. Dimensions exceeding 40' in length or width require the use of a T-Molding for proper expansion.

3. If the starting wall is out of square, it will be necessary to scribe the first row to match the wall, allowing the opposite side of the row to present a true and straight base for the rest of the floor. When the first row is complete, you must have a straight, even base established to build upon.

Step 2: GLUING THE BOARDS TOGETHER

When installing the CASABELLA HARDWOOD FLOORING use products which have been approved for the floating installation method, the boards must be side and end glued using Casabella Approved Hardwood Tongue & Groove Adhesive (or other authorized product). Always apply the adhesive into the bottom of the groove on each board. Do not fill the groove. Apply a continuous bead, filling the bottom of the groove no more than halfway full. Start & stop adhesive 2" from the ends on the long side of the board and 1" from the ends on the butt ends.

Note: If any excess adhesive squeezes up to the finished surface, wipe it off immediately using a water dampened cloth or Casabella Approved Adhesive Remover. Then immediately dry the surface and buff with a dry cloth. If the adhesive has dried, use a soft white cloth moistened with Casabella Approved Adhesive Remover. Do not abrade the wood surface.

Step 3: INSTALLING THE REST OF THE FLOOR

Note: Always random stagger approximately 12" to 24" between end joints of adjacent board rows. The end joints should not repeat visually across the installed floor.

After installing the first row of boards, apply the adhesive to the first board on the second row using the above gluing instructions. Connect that board to the first row remembering the 12" to 24" stagger between the end joint of the board on the first row. Tap the boards together with a hammer and a tapping block. Be sure that the tapping block is against the tongue only and use only a gentle tapping motion to tap the boards together. Excessive force will damage the board making it difficult to install additional boards. Once the board has been tapped into place check for a tight fit on sides and ends. To install the rest of the flooring, continue placing the boards from left to right, building a rack 3 to 4 rows wide, as the installation continues to complete the floor.

Note: When installing around fixed objects, small areas or even in general installation areas, the use of installation straps may prove helpful for securing boards together. Installation Straps are a handy tool that will ensure a tight fit when used to strap continuous rows of hardwood.

Step 4: INSTALLING THE LAST ROW

Most often the entire length of the last row will need to be cut so that it is narrow enough to fit the remaining space. When this occurs, follow this simple procedure:

* Lay a row of boards, unglued, with the tongue toward the wall, directly on top of the last row installed.

* Take a full width scrap piece of the Casabella Hardwood product that is being installed with the face down and the tongue side against the wall. Use appropriate spacers against the wall to ensure the proper expansion

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space.

* Draw a line along the row moving down the wall. The resulting line gives the proper width for the last row which, when cut, can then be wedged into place using the pull bar. Spacers should remain while the adhesive sets.

Note: Floor should remain free of foot traffic for a minimum of 12 hours while adhesive sets. A drying time of 24 hours is recommended before any damp-dry mopping, cleaning or heavy objects or furniture can be put back into place.

Make sure when the installation is complete that the spacers are removed and the expansion space is covered with an appropriate molding as described in **MOLDINGS, TRIM & TRANSITION PIECES**.

GLUE DOWN INSTALLATION METHOD

JOBSITE PREPARATION

* Undercut door case moldings as needed.

* Remove any existing wall base, shoe molding, quarter round or doorway threshold moldings.

Step 1: GETTING STARTED

Note: For CASABELLA HARDWOOD FLOORING planks less than 4.5" wide, use a 3/16" square notch trowel. For planks wider than 4.5", use a 1/4" square notch trowel. Only trowel enough adhesive to set 30-45 sq.ft. of wood. The hardwood can be "wet set" into the Casabella Approved adhesive which has 45 minute open working time.

* Always orient the wood so that the tongue is facing the starting wall.

* Install the flooring parallel to the longest wall in the room. Measure out from the wall in two places allowing the proper expansion space. Mark and snap a chalk line across the two marks. Glue the first row and place spacers against the walls to secure the row in place. Continue installing the floor from left to right. Spread only enough glue to install what can be set within 45 minutes. Work your way out of the room. After the install is completed, keep the floor free from foot traffic for a minimum of 8-12 hours to allow adhesive to properly set.

*** Step 2: SPREADING CASABELLA APPROVED ADHESIVE**

* Always refer to the specific instructions on the Casabella (or other authorized) hardwood flooring adhesive label.

* When using a Casabella Approved adhesive, use the recommend notched trowel.

Step 3: STARTING THE INSTALLATION

* The flooring should be installed from several cartons at the same time to ensure proper color, grain and shade mix.

* 3/8" expansion spacing is required on all installations.

* Working from the subfloor, (not on the hardwood), from left to right, lay the next board and continue working towards the right until you need to cut a piece to complete the first row. Measure the size you need to complete the first row and cut to length. (Remember to leave expansion space). The balance of the piece you cut may possibly be used to start the next row, if the length is a minimum of 12". Be attentive to staggering the ends of the boards correctly in adjacent rows to avoid clustering end joints. A tapping block/hammer, can be used to tap the boards until they are in proper position. Lock the row in place using spacers against the wall in the expansion space.

* To protect the face of the boards, always saw with the teeth cutting into the face of the board.

* **For Wood Subfloors:** If you are working on a wood type subfloor, you may want to use small finishing nails to hold the first row in place. Fill nail holes with wood filler designed to blend with your new floor.

Step 4: INSTALLING THE HARDWOOD

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- * Complete the rest of the installation by spreading enough adhesive to install 45 sf. at a time. Continue to dry rack when the hardwood so that you maintain the correct random end joint stagger, then continue setting the hardwood into the adhesive.
- * Make sure that there is 100% contact between the hardwood and the adhesive. Use a clean, smooth, 100- 150 lb. roller to roll the flooring at every 150 sf. interval during the installation.

Step 5: INSTALLING THE LAST ROW

- * Most often the entire length of the last row will need to be cut so that it is narrow enough to fit the remaining space. When this occurs, follow this simple procedure:
- * Lay a row of boards, unglued, with the tongue toward the wall, directly on top of the last row installed.
- * Take a short piece of the Casabella Hardwood product that is being installed with the face down and the tongue side against the wall.
- * Draw a line with a pencil along the row moving down the wall. The resulting line gives the proper width for the last row which, when cut, can then be wedged into place using the pull bar.
- * You will need to use the Pull Bar with care to make the last row fit tightly and allowing for proper expansion space. Leave spacers in the expansion space until the adhesive has cured, then remove. Keep the floor free from foot traffic, for 12-24 hrs. or until adhesive has set securely.
- * Casabella recommends rolling the floor with a 100-150 lb. clean roller to ensure good adhesive to wood contact.

Final Inspection: After the floor has been cleaned, inspect the floor for nicks, scratches, gaps or planks that may have moved during installation, as well as any other imperfections that need attention. Touch up nicks and scratches with touch-up products. In typical climates, the new floor can accept foot traffic within 24 hours. In areas where additional curing time is required, more time may be needed.

STAPLE OR NAIL DOWN INSTALLATION METHOD

Before you begin using the following instructions, please refer to the Pre-Installation Job Prep information above.

NOTE: OUR PRODUCTS ARE NOT WARRANTED AGAINST SQUEAKING, POPPING OR CRACKLING WHEN USING STAPLE-DOWN OR NAIL-DOWN INSTALLATION METHODS. SOME SQUEAKING, POPPING OR CRACKLING IS NORMAL AND POSSIBLE WHEN USING STAPLE-DOWN OR NAIL-DOWN INSTALLATION METHODS. THESE SYMPTOMS MAY BE AGGRAVATED IN ARID AREAS OR DURING DRY CONDITIONS.

SET UP AND USE OF PNEUMATIC STAPLERS AND NAILERS

Minor occasional noises within the flooring are inherent to all staple/ nail-down installations and can change as environmental changes occur. This is not a manufacturing defect and is therefore not covered under our warranties (see warranty). You can help reduce squeaking, popping, and crackling by being sure that the subfloor is structurally sound, does not have any loose decking or joists, and is swept clean prior to installation. You should also be sure that your stapler or nailer is setting the fastener properly, not damaging the planks, and that you are using the correct nailing schedule. When used improperly, staples or cleats can damage wood flooring. If the tool is not adjusted properly the staples/cleats may not be positioned at the proper angle and cause blistering, peaking, squeaking, or crackling of the floor. Some models may require the use of an adapter to adjust for proper thickness. Test the tool on a piece of scrap material first - set the stapler/nailer flush on the tongue side of the plank and install a staple/cleat. Should the staple/cleat penetrate too deeply reduce the air pressure; if the staple/cleat is not deep enough then increase the air pressure using an in-line regulator. The crown of the staple/cleat should sit flush within the nail pocket to prevent damage to the flooring and to reduce squeaking. The flooring manufacturer is not responsible for damage caused by the mechanical fasteners.

Air Pressure settings and the speed of installation are dependent upon the air compressor model used, and the **capacities of the tank system involved**. Care should be taken not to exceed the ability of the compressor and tank system to immediately return to the required air pressure during the stapling operations. The use of low capacity compressor tank systems will require a slower stapling sequence during installation, in order to ensure that all staples are properly seated. Improperly seated staples will further slowdown the board fitting installation process, lead to movement and noise within the flooring system, and possibly raise areas (staple bumps) on the flooring surface. In situations where multiple pneumatic staplers will be used simultaneously during installation, an air compressor and tank system of sufficient horsepower and tank capacity should be used to support the continuous full pressure operation of **all** fastening equipment being used at one time. In situations where hardened moisture resistant sub floor materials are being used, such as OSB materials rated for wider spaced 19" or 24" joist or beam centers; **higher air pressure settings may be required to properly seat the flooring staples**. Always use a test piece of flooring to properly adjust the pneumatic stapler in these situations, **before** beginning the full installation of the flooring.

IMPORTANT NOTE: Only use manufacturer's recommended staples or cleats; For 3/8" thick products the minimum length staple/ cleat is 1"; For 1/2" thick products the minimum length staple/cleat is 1 1/4";

Read and follow the manufacturer's instructions for complete set-up and operation of equipment.

PNEUMATIC STAPLING GUIDELINES (STAPLE DOWN INSTALLS ONLY):

Casabella Hardwood has identified the following staplers and their respective staple sizes, for the installation of the CASABELLA HARDWOODFLOORING Products:

- ◆ Bostitch #LHF97-125 20 ga. x 3/16" crown x 1" long
- ◆ Bostich #SX 150 BHF-2 18 ga. x 1/4" crown x 1" long
- ◆ Porta-nail Twin Trigger 20 20 ga. x 3/16" crown x 1" long
- ◆ Senco #SLS20HF 19 ga. x 3/16" crown x 1" long
- ◆ Duo-Fast #SS1848F 18 ga. x 1/4" crown x 1" long
- ◆ **Note: Always use a pneumatic flooring stapler that engages the top of the flooring at the appropriate angle. Make sure that the flooring stapler is in good working condition and fully seats the staples properly to prevent top edge or surface damage. DUE TO THE VARIABLE NATURE OF STAPLERS AND COMPRESSORS, CASABELLA WILL NOT WARRANTY DAMAGE TO ANY PART OF A PLANK FROM A STAPLER TO INCLUDE THE TONGUE.**
- ◆ **Important:** Start by setting the air compressor to 70-80 PSI (or follow the stapler manufacturer's suggested PSI setting). Adjust the air pressure to ensure proper setting of staples. If splitting damage occurs, lower the air pressure. If the staples are not fully seating properly, increase the air pressure setting gradually until proper seating is achieved.
- ◆ **Important:** If you need to remove a side nailed staple, do not pull straight up from the staple with the claw hammer resting on top of the plank. This will damage the surface of the board. Instead, pull out the staple at the front of the board with all pressure from the hammerhead directed into the subfloor.

JOB SITE PREPARATION

* Always acclimate the product for 48 hours prior to installation when installing in areas that have not been properly climate controlled for at least five days.

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- * Verify that the floor is level and structurally sound. Repair as needed.
- * Undercut door case moldings as needed.
- * Remove any existing wall base, shoe molding, quarter round or doorway thresholds.
- * Cover the clean surface, wall to wall, with 15 lb. black asphalt saturated felt paper.

Butting the edges together.

Note: National Wood Flooring Association guidelines recommend against the use of Red Rosin paper in place of asphalt paper.

Step 1: ESTABLISH A STARTING POINT

- * Before beginning the actual installation, start a random layout of the flooring by arranging short and long lengths equally over the areas where the flooring is to be installed.
- * Work out of several cartons at a time to ensure proper color and shade mixture.
- * Align the first row of planks to be sure you have a good straight line from one side of the room to the other. Snap a chalk line at the desired distance from the wall to help align the planks. The end joints of plank or strip flooring should be staggered to achieve the best appearance in the finished floor. (Minimum 6-8" for 3" planks, 12-24" for longer, wider 4-7" planks).

Important: Leave the 3/8" expansion space recommended for expansion at all vertical fixed objects. (Normal rule of thumb is to have the expansion space equal the thickness of the wood).

Example: 3/4" thick wood planks require a 3/4" expansion space.

Step 2: INSTALLING THE FLOOR

Getting Started

1. After the subfloor has been properly cleaned and prepped cover the subfloor with 15lb. asphalt felt paper. This material will help to keep the floor clean and help to retard moisture from below (there is no complete moisture barrier system for staple or nail-down applications).
 2. Select a starter wall. An outside wall is best: it's most likely to be straight and square with the room. Measure out from this wall, at each end, the overall width of the plank (board width + tongue + the space needed (3/8" or 1/2") for expansion).
 3. Snap a chalk line from these points, parallel to that wall.
 4. Install the first row of starter planks along the chalk line/straightedge and secure into position with the tongue facing away from the starter wall (toward you). Drill pilot holes through the face of the plank every 6" (in the dark grain); approximately 1" from the back edge of the board and secure planks with 1" finishing nails. Countersink nails and fill with appropriate colored wood filler – remove excess filler from surface.
 5. Blind nail at a 45° angle through the tongue 1"-2" from the end joints and every 6" in between along the length of the starter boards (Predrill holes to make this easier). Depending on the width of the flooring it may be necessary to do this for the first few rows prior to using a pneumatic stapler/ nailer.
- NOTE: Proper alignment is critical. Misaligned starter rows can cause side and end gaps to appear in proceeding rows of flooring.
6. Continue to install the flooring making sure to nail/staple 1"-2" from the ends and every 3" – 4" thereafter. Make certain the tool is adjusted properly to ensure that the fastener is at the proper angle and is flush within the nail pocket. As you continue working across the floor try to maintain a six-inch minimum space between end joints. Randomly install different lengths to avoid a patterned appearance.
 7. If needed use a tapping block to help engage the boards together until the tongue-and-groove is flush and tight and no gaps are present between adjacent planks. NOTE: Never use a rubber mallet or hammer directly on the flooring to engage the tongue-and-groove. This can damage the flooring and/or finish.
 8. As you approach the end wall it may be necessary to cut the width of the last row – be sure to allow for the expansion along the end wall. Once the final cuts are made set planks into place.

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9. The last few rows will need to be fastened by hand. To fasten the final planks into place, you must either manually blind nail and/or face-nail through the surface on the final planks. Drill pilot holes at a 45-degree angle to the floor and blind nail using 1" finishing nails. Alternatively, drill pilot holes in the face every 6" (try to drill holes in darker portion of the wood) and install with 1" finishing nails. Countersink nails and fill with appropriate colored wood filler – remove excess filler from surface with a clean rag and proper cleaner.

SPECIAL CIRCUMSTANCES

Doorways: Attempting to continue installing rows through a doorway into another room can be difficult because the narrow opening is a very small base upon which to continue consistent, straight and even rows into the next room. **T-moldings are available to install in doorways when joining flooring room to room.** When using the Floating install method, every doorway less than 6' wide must be transitioned using a T-molding. Floating flow through installs are allowed only if the total length of the flow-through does not exceed 40', and the flow through doorway is 6' or wider.

To achieve alignment of plank rows from room to room, it is best to use a master reference line to run through the doorway to the far ends of each room involved. Position the line so that it is square and parallel from each room's corresponding wall. Use this line to align the plank rows from room to room.

Pipes, vents and other fixed objects: Each can be unique, but the general rule is to measure very carefully before you cut and remember to leave a 3/4" expansion gap between the object and the flooring. You will cover expansion gaps with molding, vent covers or pipe rings when the floor is complete.

Installation on Stairs: Working from the top step down, flooring should be installed using adhesive and screw type fasteners or nails. All stair nose moldings must be glued and nailed, or screwed every 8", as a safety precaution.

Glue down over cork: Using Casabella Approved Wood flooring adhesive, **CASABELLA HARDWOOD FLOORING can be installed over a structurally sound concrete sub floor that is covered with full spread, permanently bonded acoustic cork. Cork thickness should not exceed 1/4" (6.35mm), with a density between 11.4 and 13 lb/cubic foot. Install cork in accordance with cork manufacturer's recommendations. Acoustic cork should be pure cork with a polyurethane binder.**

MOLDINGS, TRIM & TRANSITION PIECES

Installation Tips:

- * Moldings should be acclimated 48 hours
- * Moldings must be predrilled to avoid splitting whenever they are to be secured with nails or fasteners.
- * The tool of choice for cutting hardwood moldings is a 10" or 12" motorized miter saw with pre-set adjustments for the basic miter cuts at 22.5°, 45°, and 90°. A carbide tipped blade makes the best finished cuts. Be sure the saw blade is positioned to cut into the finished face.
- * When installing Wall Base molding, eliminate the need to putty as many holes on the molding by placing the bottom nail below the finished line of the Quarter Round.
- * On Wall Base or Quarter Round moldings, never restrict the hardwood floor's natural contraction/expansion movement by driving the fasteners at a downward angle. Attach the moldings to the wall or vertical surface.
- * Always miter cuts rather than having butt cuts when splicing. Decide the direction of the miter by cutting the molding with the long point oriented in the same direction as your natural line of vision when you enter the room.

Wall Base - Borders the wood floor at the base of the wall to give the room a finished look. This molding along with the Quarter Round conceals the required expansion space between the wall and the hardwood flooring. It is also sometimes used under cabinets and toe kicks.

Quarter Round - This molding conceals the required expansion space between the wall/ wall base and the hardwood flooring. It is also sometimes used under cabinets and toe kicks where a wall base won't fit or at the

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base of the stairs to provide a subtle blend between the floor and the wall or vertical surface.

Threshold –This molding is used at exterior doorways as a transition between flooring and the doorway threshold. It also can be used to transition a wood floor to different floor types to make them fit together perfectly, such as high pile carpeting or tile. Another typical use for a threshold is to conceal the expansion space between the flooring and a vertical surface such as fireplace hearths and sliding glass doors.

Installation: Lay the threshold molding in place to determine a proper fit. The threshold molding should overlap the flooring by 1/2” to 3/4” leaving the balance for expansion. To attach the threshold, nail into the subfloor behind the lip of the molding. Be sure when nailing not to obstruct the floors expansion space.

T Molding - Doorway molding used to join two wood floors in adjoining rooms. Also used when making transitions from a wood floor to another floor that is approximately the same height, such as ceramic tile, hardwood, or laminate floors. T-Moldings are also used to provide expansion joints when a floor dimension exceeds the length or a width of 40’.

Installation: A space of 1 1/4” between the two adjoining floors is necessary to properly install the molding. This is to allow for the expansion space. Lay the T-Molding in place to determine proper fit. To attach the T-Molding between a ceramic tile floor and the hardwood floor, apply 1/4” bead of construction adhesive to the top edge of the ceramic tile. To attach between two hardwood floors apply the 1/4” bead to the top edge of one side of the hardwood only. Seat the molding in place allowing for a minimum of a 1/4” overlap on the wood flooring. Make sure to allow for the expansion space between the T-Molding and the tile. When installing over a wood subfloor, use finish nails to secure T-mold. When installing over concrete, use heavy-duty construction adhesive to secure T-mold.

Overlap Reducer- (Floating Method) Used to join hardwood floors that utilize the floating installation method with floors of different heights such as vinyl, ceramic tile, or low pile carpeting.

Installation: To attach molding, pre-drill and nail in appropriate 6” to 8” intervals. Do not nail less than 2”- 3” from the ends of either side. To attach the molding using glue, apply glue to the front edge of the molding. Apply one or two 1/4” beads of construction adhesive to the subfloor and seat the molding in place. It is important not to attach the reducer directly to the floating floor to allow expansion and contraction.

Overlap Stair Nose – (Floating Method) provides the proper transition for stairways or steps, which have hardwood floors that have been installed using the floating installation method. The Stair Nose also provides the proper overhang for a transition from one floor level to the next such as the step into a sunken living room.

Installation: To attach molding, pre-drill and nail in appropriate 6” to 8” intervals. Do not nail less than 2”- 3” from the ends of either side. Also apply glue to the front edge of the molding. Apply one or two 1/4” beads of construction adhesive to the subfloor and seat the molding in place. All stair nose moldings must be nailed and glued to secure the molding adequately. It is important not to attach the reducer directly to the floating floor to allow expansion and contraction.

Flush Reducer - Used to join hardwood floors that have been glued down or nailed down to transition with floors of different heights such as vinyl, ceramic tile, or low pile carpeting.

Installation: To attached molding pre-drill and nail in appropriate 6” to 8” intervals. Do not nail less than 2”- 3” from the ends of either side. To attach the molding using glue, apply glue to the front edge of the molding. Apply one or two 1/4” beads of construction adhesive to the subfloor and seat the molding in place.

Flush Stair Nose - Provides the proper transition for stairways or steps which have hardwood floors that have been installed by either the nail down or glue down installation method. The Stair Nose also provides the proper overhang for a transition from one floor level to the next such as the step into a sunken living room.

Installation: When used on a stair step, the Stair Nose molding should cover and overlap the riser. When used on a step-up to another room, the Stair Nose molding becomes the starting “edge” of the floor. Because of the interlocking of the molding with the floor, the Stair Nose molding should be installed first. Once the molding is

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in place, the interlocking floor can be installed. Moldings should be installed using adhesive and screw type fasteners or nails.



Glue Assist Installation Requirement

Additional installation instructions for all solid floors over 4" wide & all engineered floors over 5" wide:

Glue Assisted Installation: You must account for potential moisture in any installation. All installations of the wood floors mentioned above require a glue assisted install. The two suggested ways to provide a moisture vapor retardant are:

1. Install an underlayment paper. Cut a ½" channel, in the paper perpendicular to the direction of the floor to be laid, every 12" on center. During installation of the wood run a minimum ¼" bead of approved adhesive (Mapei Ultrabond Eco 907 or a comparable product in caulking cartridge) every 12" on center perpendicular to the direction of the wood.
2. Roll on a coat of moisture barrier over the entire subfloor to create a moisture retardant surface. Use a normal nailing pattern for the dimensions of the wood installed per NWFA installation procedures.